Review: Acoustic Revive RR 77 Generator

There Are More Things In Heaven And Earth... 
...Than Are Dreamt Of In Your Philosophy.

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IN TUNE WITH THE UNIVERSE?

The researchers and designers of Acoustic Revive let us walk into a complete new dimension. It is the knowledge of a basic phenomenon occurring in a much larger realm than our listening rooms. And it is the application of it to our music systems, if we want to. The phenomenon we are dealing with is Schumann Resonance which occurs in the earth's cavity, the space between the surface of the earth and the ionosphere, 55 Miles above it.

Today only fools do not know that resonances occur in all sorts of materials and that grounding (as instructed by the designers of Goldmund) is of a blatant significance; that lead can be a disastrous material if used unwisely; that electrical currents have their effects; that electro-magnetic fields generated by transformers do deteriorate the digital to analog conversion in a CD player; that...

EXPERIENCE

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you just name it.

POWER CONDITIONERS

Going a step further is discussing the benefits and also the drawbacks of certain Line Filters or specific Power Conditioners. But that is still talking about materials inside the chain in connection to dynamics, audio frequencies, the frequency curve, the extension of the frequency band and the reproduction of transients and the possible harmonic distortion, all occurring within the system. That is still standing with both feet on the ground.

HERE’S THAT RAINY DAY

It is true, a shiny design is very appealing. But fortunately there are also those who do hear the intrinsic value of the various combinations of materials, the composition of components, the topology on circuit boards, and the way a specific component is constructed, be it an amplifier, a cable, a loudspeaker. When evaluating equipment we often have discussed the phenomenon that on certain days the reproduction is lacking in detail, firmness and definition. Those are the days when the air is humid, and a moist blanket is draped over your electrical and acoustical world. The energy has seemingly been neutralized by the rain. The tension which gives firmness is missing.

CRISP AND CLEAR

When it is freezing cold and the air is dry, we noticed that the reproduction gained in sharpness, firm detail and assertiveness. That is bullocks to many. Roughly 85% of listeners content themselves with restricted information and maintain that they do not hear the differences. As said, this group includes a few reviewers as well. If they are happy with it, happy they shall be, like that music lover who wrote his "views on digital and analog" on the Bearac Blog. But to the good hearing crowd it is a serious and acknowledged phenomenon.

I mention this, because there are newcomers to the game who themselves are experiencing some of these symptoms, occurrences, and phenomena. Needless to say that the other 15% are considered to be the fools. Well, let me tell you, I belong to that last category. And you may as well.

SCHUMANN RESONANCE

This cavity has a very low fundamental electromagnetic frequency which is brought about by the discharging between the positive ionosphere and the negative surface of the earth. This discharge produces an extremely low frequency (ELF). Although it was German scientist Winfried Otto Schumann (May 20, 1888-September 22, 1974) who suspected, predicted and finally calculated that frequency (eventually with his students), it was in fact Nikola Tesla (July 10, 1856 – January 7, 1943) who discovered the discharge phenomenon. Enlightening in this respect is Earth Breathing, a comprehensive article about the phenomenon which is an essential ingredient of biological life. Schumann calculated that in the cavity an electromagnetic frequency occurs of round and about 7.8 Hz.

I quote from Tony Smith’s website:

"The fundamental frequency of the Schumann resonance is roughly the fundamental frequency of a spherical shell whose inside boundary is the surface of the Earth and whose outside boundary is the ionosphere, acting as a spherical shell electromagnetic waveguide cavity. The fundamental frequency ought to be roughly the time it takes electromagnetic radiation to go all the way around the spherical shell.

Since the speed of light is about 300,000 km/sec and one cycle is the circumference of the Earth, which is about 40,000 km/cycle the fundamental frequency should be on the order of

\[
rac{300,000 \text{ km/sec}}{40,000 \text{ km/cycle}} = 7.5 \text{ cycle/sec}
\]

40,000 km/cycle

A cycle/sec is just a Hz, so that 7.5 cycle/sec is 7.5 Hz.

The Schumann Resonances are actually observed by experiment to occur at several frequencies between 6 and 50 cycles per second; specifically 7.8, 14, 20, 26, 33, 39 and 43 Hertz, with a daily variation of about +/- 0.5 Hertz. The 7.8 Hz observed fundamental resonance is close to the rough theoretical estimate of 7.5 Hz."

Electromagnetic radiation is a form of energy. It has properties of both an electric and magnetic wave and travels through a vacuum with the speed of light. The space between the surface of the earth and the ionosphere is not exactly a vacuum but comes close to it.

DISTURBED

Scientists have found that the Schumann Resonance and the other resonances mentioned, are an essential ingredient of life. It is a natural occurrence. This electromagnetic field has always been there right from the moment when the earth had settled. In theatrical terms one could say that it is not just a prop but a basic part of the set. The resonance is said to be essential to the proper functioning of the human brain. (It has an effect on the Alpha waves produced in the brain.) However in industrial regions, in large towns and big cities, this electromagnetic field

http://www.soundfountain.com/amb/r77acousticrevive.html

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HEARING THINGS

Now your brain has the ability to filter out disturbances, distortions, disorder. Classical collectors of historical material can easily listen to the background noise of an old record. But they frown their eyebrows if the sound is not harmonic. The brain gives priority to the essence of the sound. Sensitivity of hearing has led to many experiments. We witnessed demonstrations of CDs being treated with a demagnetizer. It ruined the sound of the instruments and the orchestra. It took hours for the CD to be "normal" again.

CRYSTAL EXPERIENCE

In the early nineteen nineties the Audio Engineering Society (AES) held their meeting in the Netherlands, in the city of Leiden. A member demonstrated the effect of Tourmaline when placed on the binding posts of the loudspeaker system. Again the sound was more liquid, but also weaker, lost some of its harmonics. Although many in the audience said they could hear it and preferred the sound, my editor and I gave our firm opinion.

BEFORE AND AFTER

Many of these trials stem from the desire to make the sound reproduction (especially from digital sources) better, to make it more analogous. Specific materials can be used of course. But the application should not be implemented afterwards, but incorporated during the design stages. Silver cable can be very good, but you have to design the loudspeaker systems specifically while they are connected with silver cable and determine the positions and relations between the units, the shape of the baffle, the volume for proper loading, the filter sections, etc. Chunks of tourmaline on the binding posts? OK! But you have to put them right there from the start when constructing the system. I relate these old facts so the younger audiophile gets an idea that many experiments he is doing and discussing in forums, have already been explored by earlier generations. To err is human, but to forget about the past is a mistake. It means that the technique of today is the result of a development which he should not ignore.

WHAT IS YOUR REFERENCE

It all depends what your personal reference is. Not long ago I spoke to a visitor from Taiwan. He is an analog adept. I advised him to is generally disturbed, obstructed, is weak, or it may be missing and does not occur in one's existence. This impairs the well being of every living creature in that region, be it human, animal or plant. It is said that the absence of the Schuman resonance could make you ill. (NOTE: In contrast, high electromagnetic frequencies and radiation generated by industrial plants and components, have a negative effect on the human brain, although the electricity companies and the manufacturers of cell phones do not want to admit this. Research seems to prove that high electro-magnetic frequencies (pulses) do transport heavy metals, which are normally filtered out, to the brain and have a negative health effect).

LISTENING TEST

So there is an effect of the Schumann Resonance on the human brain. The workings of the RR-77 was easily established by listening to music, first with the RR-77 switched off, and then with the generator switched on. The instruction is that the RR-77 is to be placed at more than 1.50 m above the listening room's floor. That was simple enough by extending a record shelf, just enough to place the RR-77 on. But was it the brain effect? Or was it something else? How could I find out? I decided to do a few tests with the RR-77 Generator. My ears would be used as a measuring probe. First of all I put on a record and listened to the familiar sound of my system. Then I connected the RR77 to the mains and put on this same record. There was a distinctive difference. The first impression was that there seemed to be some sort of congestion I had not been aware of or at least did not think it was disturbing. The congestion in the sound was in the mid high frequency band. Now with the RR77 switched on, this congestion was gone. Now the notes sounded without restraint. The sound opened up.

RECORDING

Now the question is: Does the Schumann Resonance have an effect on the working of components as well? And to what extent? I had to isolate my ears and brain to find that out. This is what I did. I chose a record with prominent and clear high mid frequency content as that was the region which had demonstrated the difference in the first place. Tsuyoshi Yamamoto's Misty, a Three Blind Mice pressing, fulfilled the job (TBM 15PJ-1026).
attend a concert in the Concertgebouw. He told me that a few days ago he already had witnessed the orchestra in the great hall on two occasions. And he added: "One distinctly hears the Philips sound." Indeed the Philips engineers used the hall for many recordings, but they also knew to convey in their recordings the spaciousness of it. Living in Amsterdam, the Concertgebouw is my favourite sound reference, and then sitting in row six or ten preferably. In any case not too far away from the orchestra. There you have the left right experience, the impact of dynamics, etc. I once attended a concert of the New York Philharmonic with Zubin Mehta in Lincoln Center's Avery Fisher Hall and was rather disappointed about the acoustics.

You know that the live performance is an important reference. People who play one or more acoustic instruments have a better knowledge of what sound is like and how a recording should sound. But even for them there is a danger that the audio set is going to be the reference.

**ADDING A NEW COMPONENT TO YOUR AUDIO SET**

The human being is susceptible to changes in his life. Following a new diet, moving to a new home, buying a new component... Discovering an influence which was hitherto unknown can shed new light on one's place on this earth. But it is for every individual to find out if changes are to the benefit of the personal existence or not.

"Misty", the RR-77 not connected. Then I interrupted the recording and switched the RR-77 Generator on. Now I recorded the same passage. In both instances the music was not reproduced by the loudspeakers during recording. I did not use earphones.

**PLAY BACK**

In order to check if there is the slightest influence of the RR-77 Generator on components, I played back the two short recordings on a Denon CD player. The RR-77 **switched off** of course, in order to eliminate the slightest influence on my brain (if that influence was ever there and measurable). I also did not want to add any possible influence generated by the R-77 for a second time while the reproduction took place.

**Play back. The RR-77 Generator switched off.**

I had experienced the difference when listening with and without the R77. Now, what would I witness by only listening to the two recordings? If there was any effect of the R-77 on components, these two recordings would tell.

When playing the two CD-recordings it was immediately obvious that the noise spectrum (surface noise) is very different. With the RR77 Generator on, slightly more noise was being heard through the simple 2-way speakers which were used for the test. It was clear that at the same time the piano had more air. And again the congestion was gone.

I must admit that at the time of trying the RR77, we had extremely high temperatures and the ferro fluid tweeter of the 2-way loudspeaker system was rather liquid and did not give much resistance to the coil compared to when temperatures are average. The compliance of the phono cartridge was altered also because of the tropical weather. So my experiences and findings were a sort of magnified, but nevertheless indicative of what the RR77 does.

**EFFECT**

The sound is more liquid, has a more stretched out high frequency content. The frequency band seems to be larger, wider. Slightly more hiss was noted, but that was caused by the two low budget two-way systems used for evaluation. In high end loudspeaker systems this will not be noted. Again there was no congestion, there was more airiness, more space.

Many of you readers know that if you add a subwoofer to your stereo loudspeaker systems (I mean a good one and connect it in phase!), the high frequencies are rendered in a more refined fashion, and the mid band becomes...
more airy and detailed, it opens up. A subwoofer added to your system will give you a totally new experience. Sound thinking would tell me that there is a certain analogy. By adding a very low frequency, in this case the Schumann 7.5 Hz. electro-magnetic resonance, the high frequencies are sounding more freely, less constrained. Listening to some beautiful violin recordings, symphonic climaxes and energizing jazz, I noticed that specifically old mono recordings did benefit from the RR-77. But naturally perfect pressings from the 1970’s and 1980’s showed ease and realism. Transients were laid open as it were, and exact, there was more insight, but no delay in time.

ASSESSMENT

The recordings showed that the influence on electronic components was significant. The Pulse Generator and the Tascam CD-recorder were about 4 meter apart. Of course this distance is not important, has no value. The addition of the RR77 to an audio system is not so much a matter of taste. In fact it is the choice of the individual to combine the RR-77 with his audio set in order to bring the reproduction possibly to a higher level. To what level depends on the rest of the audio system, specifically the loudspeakers. Also important can be the question: Where do you live.

I guess that there could be less urgency if you live somewhere in the Alps, on a plain in Spain, or in Clark County, Nevada. But if you live in the midst of a heavily populated and industrialized region where nature is in less harmony or really disrupted, the RR-77 can be considered as an important component. It certainly depends on what you are used to hearing and if it will add to the truthful reproduction of music in your home. And finally there is the health matter since the RR77 Generator can have a beneficial effect on sleep and the working of the brain. One morning I got up and noticed that I did have a good night’s sleep. Suddenly I remembered that I had installed the RR77 the day before.

ADVICE

I cannot say that you should have the RR 77 incorporated in your home. But if you suspect that after reading this page, it may be beneficial, go to your dealer and ask if he can give you one Acoustic Revive RR-77 Pulse Generator on loan for a week end. That is the best way to find out and to decide. I have been living with the RR77 for over two months now and I will continue to subject myself to its workings (not only for my audio set but also for my well being I tend to think). I may even update this review in due time as I will give the RR-77 on loan to a few friends who are also very much into audio, one is a critic, another a manufacturer, and the third one is just a music lover. I will ask them to give their evaluation.

The Acoustic Revive RR-77 Generator is a very small component. It only measures 14 x 16 x 4 cm (W x D x H) and weighs 200 gr. The pictures on the right show the unit and its innards with the labyrinth and the small section with components. The power consumption is 2 Watt and the generator runs on 12 Volt DC.

If you want information on the RR 77 Generator and other products of Acoustic Revive, visit their website: